REMARKS

I. Objection to the Drawing

The drawing was objected to under 37 C.F.R. 1.83 (a) for failing to show each and every feature of the claimed invention.

A sketch of a replacement figure 4 is being filed to correct this deficiency.

The new proposed figure 4 shows an embodiment in which there are connecting means *at each end* of the absorber pipe 1 for movable connection of the glass sleeve tube 2 and the metal pipe 3. It also shows an embodiment of the "parabolic collector" as claimed in new claim 52 in perspective. The parabolic collector is claimed in claims 52 to 64.

The proposed new figure 4 does not include any "new matter" and is the agreed upon figure that was discussed during the interview with the Examiner on January 25, 2005.

For the foregoing reasons and because of the proposed new figures 4 and 5, withdrawal of the objection to the drawings under 37 C.F.R. 1.83 (a) is respectfully requested.

II. Anticipation Rejection

Claims 1, 2, 8 to 12, 14 and 15 were rejected under 35 U.S.C. 102 (b) as anticipated by JP57-95544.

The structure shown in fig. 4 of the JP reference differs significantly from

the embodiments structures shown in the applicants' figures and described in the description. Furthermore it does not protect the glass-metal transitional element between the glass sleeve tube and the metal pipe from radiation that is reflected within the annular space between the glass sleeve tube and the metal pipe, which can shorten the service life of the absorber pipe. In contrast the structure shown in applicants' figures 1 to 3 does in fact protect the glass-metal transitional element completely from this sort of internally reflected radiation.

New absorber claim 39 and the parabolic collector claim 52, which include the features of claim 39, include many additional distinguishing features, which distinguish their subject matter from the subject matter of the JP reference.

The following is a list of distinguishing features of claims 39 and 52 that separate the claimed absorber pipe from the absorber pipe disclosed in the JP reference:

(1) the folding bellows 11 is located under the glass-metal transitional element (the folding bellows 8 of fig. 4 of the JP reference is not under the glass-metal transitional element – also "under" is the correct term because if the absorber pipe of claim 39 is viewed from the outside as shown in fig. 4, the bellows is indeed under the glass-metal transitional element – looking from the exterior into the absorber pipe structure);

(2) the interior end 12 of the following bellows is arranged within annular space 4 – in the case of the JP reference the bellows 8 is outside of the corresponding annular space; and

(3) one end of the connecting element 15, 15', 15" connects the interior

end 12 of the folding bellows and the other end of the connecting element is connected to either the central metal pipe 3 or the glass-metal transitional element and both connecting element and bellows extend sufficiently into the annular space 4 – so that reflected radiation from inside the glass sleeve tube is blocked from reaching the glass-metal transitional element.

The third group of features above expresses the essential differences of the JP reference structure and the present invention. Fig. 4 of the JP reference clearly shows that there is no protection of the glass-metal transitional element from internally reflected radiation within the glass sleeve tube in contrast to the structure claimed in claim 39.

It is well established that each and every limitation of a claimed invention must be disclosed in a single prior art reference in order to be able to reject the claimed invention under 35 U.S.C. 102 (b) based on the disclosures in the single prior art reference. See M.P.E.P. 2131 and also the opinion in ***In re Bond***, 15 U.S.P.Q. 2nd 1566 (Fed. Cir. 1990).

The JP reference does not disclose an absorber pipe for solar energy collection applications that includes the features numbered (1) to (3) above and especially does not provide the structure according to point 3 above, which should eliminate exposure of the glass-metal transitional element to internally reflected radiation and thus extend the service life of the absorber pipe.

For the foregoing reasons and because of the additional features in the new claims 39 to 64, it is respectfully submitted that none of the new claims should be rejected under 35 U.S.C. 102 (b) as anticipated by JP57-95544.

III. ABSTRACT

Some changes have been made in the previously provided abstract so that it includes the additional features in the new absorber pipe claim 39.

IV. Obviousness Rejection

Claims 1 to 27 were rejected as obvious under 35 U.S.C. 103 (a) over JP57-95544 in view of Hayama, et al (U.S. Patent 4,133,298).

Hayama, et al, does show a structure in which expandable element 15 (like applicants' bellows) is located in the annular space between the central metal pipe and the sleeve tube in fig. 12 of Hayama, et al (column 5, lines 22 to 24). However the expandable element 15 (similar to bellows 11 of applicants' claims) of the reference is spaced from the end of the sleeve tube as shown in fig. 12 by the guide pipe 14, which functions like the glass-metal transitional element 5 of applicants' figs. 1 to 3. Also the expandable member 12 is attached to the guide pipe 14 with "wax"?. See the disclosure at column 4, line 67, to column 5, line 10, which apparently is an English translation from the Japanese.

In contrast the expansion compensating device 10 of applicants' claim 39 comprises a connecting element 15, 15', 15". The bellows 11 extends into the annular space 4 and its interior end is connected to one end of the connecting element. The other end of the connecting element is either connected to the central metal pipe 3 or the glass-metal transitional element 5 so that the glass-

metal transitional element is completely protected from internally reflected radiation. Although the structure in figure 12 of Hayama, et al, does provide some protection for the glass-metal transitional element there is no connecting element that is connected in the manner claimed in claim 39.

It is respectfully submitted that the protective structure of claim 39 is not obvious from Hayama, et al, or a combination of the JP reference with Hayama, et al. The structure shown in fig. 12 of Hayama, et al, makes it impossible to maintain a guaranteed vacuum in the absorber tube claimed in claim 39, as claimed in claim 39. This results in additional heat losses.

Furthermore one skilled in the art would not seek to combine features from the structure of Hayama, et al, with those of the JP reference for this latter reason.

It is well established that there must be a hint or suggestion of the modifications of the disclosures of the prior art references used to reject a claimed invention under 35 U.S.C. 103 (a) for a valid 103 rejection. For example, the Federal Circuit Court of Appeals has said:

> "The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification....It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that "one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." ***In re Fritch***, 23 U.S.P.Q. 2nd 1780, 1783-84 (Fed. Cir. 1992).

In the case of the instant invention claimed in applicants' claim 39 it is respectfully submitted that one skilled in the solar energy collecting arts would not find a hint or suggestion in the art in Hayama, et al, to modify the structure shown in fig. 3 of the JP reference by including the necessary features from Hayama, et al, to obtain the invention as claimed in applicants' claim 39. The connecting element 15, 15', 15" and the manner it is connected with the bellows are not suggested by either reference. Also the previous argumentation in the amendment filed January 4, 2005 is included here by reference thereto.

For the foregoing reasons and because of the changes in the amended claims, it is respectfully submitted that new claims 39 to 64 should not be rejected under 35 U.S.C. 103 (a) over JP57-95544 in view of Hayama, et al (U.S. Patent 4,133,298).

Should the Examiner require or consider it advisable that the specification, claims and/or drawing be further amended or corrected in formal respects to put this case in condition for final allowance, then it is requested that such amendments or corrections be carried out by Examiner's Amendment and the case passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing the case to allowance, he or she is invited to telephone the undersigned at 1-631-549 4700.

In view of the foregoing, favorable allowance is respectfully solicited.

Respectfully submitted,

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